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| 09/353,583      | 07/15/1999  | SAMUEL REICHGOTT     | GEN-040             | 3801             |

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EXAMINER

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| ART UNIT | PAPER NUMBER |
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2611

DATE MAILED: 10/23/2002

18

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/353,583

Applicant(s)

REICHGOTT ET AL. 

Examiner

Hai Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 08/09/2002 have been fully considered but they are not persuasive.

Claims 1-4, 6-19, 21-22, 24-27, 29-37 and 39-42, Applicant argues, "Bacon fails to disclose a processor that "monitors an out-of-band control channel" and that "only accepts said download on said specified in-band channel... when one or more predetermined criteria are satisfied" (p.3)."

In response, the Examiner respectfully disagrees because Bacon Fig. 2A discloses the control data is received at an out-of-band data receiver 150 and carried over an out-of-band data decoder 146 to the descrambler control 110 so to generate appropriate control signals (Col. 8, lines 12-24). Furthermore, Bacon clearly states, "control data downloaded from the system manager 12 (by any of the three data transmission schemes discussed herein, out-of-band, in-band audio or in-band video)". Thus, Bacon's system clearly meets and encompasses Applicant claimed limitation "an out-of-band control channel of the cable network for information indicating that a download of data/programming is available."

Moreover, Bacon's microprocessor 128 executes a control program (Col. 8, lines 30-50) to verify the "convenience flag" which indicates that a download of data or programming is available (Col. 16, lines 20-22) and also to verify Bytes 16 and 17 from the download parameters transaction Fig. 3A-D which indicate the frequency channel (in-band channel) on which the download program code will be transmitted (Col. 9, lines

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65+). Thus by executing the control program, Bacon's processor monitors the control channel, in this instant an out-of-band channel.

Claim 18, Applicant argues, "Bacon does not teach or suggest that execution of the new programming may be delayed until one or more criteria are satisfied that indicate executing the new programming will not inconvenience the subscriber."

In response, the Examiner further cites Fig. 9 Col. 15, lines 27-Col. 16, lines 43 to support the rejection wherein after a large amount of new program code is downloaded to memory space of the user's terminal (Col. 9, lines 25-28), the processor 128 execute the program code in which according to the parameter transactions the process of downloading (execution of the new programming) may be delayed when the subscriber does not wish to be interrupted, such as during the process of recording a premium event that he has paid for.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-4, 6-19, 21-22, 24-27, 29-37, and 39-44 rejected under 35 U.S.C. 102(b) as being anticipated by Bacon et.al. (US 5440632).

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Regarding claim 1, Bacon discloses a set-top terminal (Fig. 2A-B) for connecting a subscriber to a cable network, the terminal comprising:

A processor 128; and

A memory unit 134, 137 and 138,

Wherein the processor monitors an out-of-band control channel of the cable network (Col. 8, lines 17-50) for information indicating that a download of data or programming is available (Col. 10, lines 2-5 and Col. 16, lines 21-22) and indicating a specified in-band channel for receiving the download of data or programming offered to the set-top terminal over the cable network (Col. 9, lines 65-68);

Wherein the processor only accepts the download on the specified in-band channel and records the download in the memory unit when one or more predetermined criteria are satisfied (Col. 14, lines 65+), and wherein the criteria when satisfied indicates that acceptance of the download will cause a minimum of interference (Col. 16, lines 34-37) with the subscriber's use of the set-top terminal (Fig. 9 and Col. 15, lines 25-Col. 16, lines 12).

Regarding claim 2, Bacon further discloses wherein one or more criteria are downloaded to the set-top terminal of the cable network (see Fig. 1).

Regarding claim 3, Bacon further discloses wherein the set-top terminal verifies that the data or programming offered as the download is not already resident in the memory (Col. 15, lines 47-Col. 16, lines 12).

Regarding claim 4, Bacon further discloses wherein the set-top terminal verifies that the data or programming offered as the download is specified as being

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intended for a class of terminals to which the set-top terminal belongs (Col. 10, lines 54-60).

Regarding claim 6, Bacon further discloses wherein the one or more criteria include whether the set-top terminal is turned off (Col. 16, lines 12-19).

Regarding claim 7, Bacon further discloses wherein the one or more criteria include a deadline by which acceptance of the download is required by an operator of the cable network (Col. 15, lines 57-63). Since the system operator sets the "immediate flag"; therefore, the setting corresponds to the specific point in time in which the operator set the flag to determine the moment (deadline) that the downloading of the code should take place. Thus, Bacon encompasses the claim's limitation "said deadline being a specific point in time subsequent to an initial offering of said download of data or programming".

Regarding claim 8, Bacon further discloses wherein the set-top terminal defers the deadline if the set-top terminal is used to provide a dedicated services including recording programming in conjunction with a VCR or providing pay-per-view programming (Col. 16, lines 1-5).

Regarding claim 9, Bacon further discloses wherein the set-top terminal signals the subscriber that the download is available and requests permission to accept the download, the one or more criteria including a positive response by the subscriber to request for permission to accept the download (Col. 16, lines 16-42).

Regarding claim 10, Bacon further discloses wherein the set-top terminal tunes to the specified in-band channel to receive the download if the one or more criteria are satisfied (Col. 9, lines 66-68 and Col. 15, lines 16-21).

Regarding claim 11, Bacon further discloses wherein if the one or more criteria are satisfied, the processor erases information in the memory unit and replaces the erased information with data or programming from the download (Col. 14, lines 65-Col. 15, lines 13).

Regarding claim 12, Bacon further discloses wherein following the download of programming, the processor will only execute newly received programming from the download when one or more predetermined criteria are satisfied (Col. 15, lines 21-26).

Regarding claim 13, Bacon further discloses wherein prior to accepting the download, the processor determines whether any programming is stored in the memory (Flash) which is not being executed, but which is identified as being a later version than programming being executed by the processor at that time; if the processor locates any such later version of programming in memory (Flash), the processor will terminate execution of programming being executed, erase the terminated programming from memory and reset so to as execute the later version of the programming (Col. 13, lines 68-Col. 14, lines 65).

Regarding claim 14, see analysis of claim 11.

Regarding claim 15, Bacon further discloses wherein the memory unit is logically partitioned into two sections, a first section for containing programming

being executed by the processor and a second section for receiving and storing programming from the download (Fig. 6).

Regarding claim 16, Bacon further discloses wherein each download of programming contains two versions of a programming object, a first programming object for storage in and execution from a first memory section of the memory unit ROM and a second programming object for storage in and execution from a second memory section EPROM, of the memory unit wherein the processor downloads one of the two versions of programming in accordance with whether the first and second memory sections is vacant (Fig. 6; Col. 13, lines 5-65).

Regarding claim 17, Bacon further wherein the memory unit comprises two separate memory devices (ROM, EPROM), a first memory device for containing programming being executed by the processor (ROM) and a second memory device for receiving and storing programming from the download (EPROM) (Col. 13, lines 54-65).

Regarding claim 18, see analysis of claim 1 in combination with claim 12.

Regarding claims 19, 29 and 37 see analysis of claim 6.

Regarding claims 21 and 39, see analysis of claim 7.

Regarding claims 22 and 40, see analysis of claim 8.

Regarding claims 24 and 36, method claims 24 and 36 correspond to the apparatus claim 1; therefore they are analyzed as discussed with respect to claim 1.

Regarding claim 25, method claim 25 is analyzed as discussed with respect to claim 2.



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Regarding claim 26, method claim 26 is analyzed as discussed with respect to claim 3.

Regarding claim 27, method claim 27 is analyzed as discussed with respect to claim 4.

Regarding claim 30, method claim 30 is analyzed as discussed with respect to claim 9.

Regarding claim 31, method claim 31 is analyzed as discussed with respect to claim 12.

Regarding claim 32, method claim 32 is analyzed as discussed with respect to claim 13.

Regarding claim 33, method claim 33 is analyzed as discussed with respect to claim 11.

Regarding claim 34, method claim 34 is analyzed as discussed with respect to claim 15.

Regarding claim 35, method claim 35 is analyzed as discussed with respect to claim 16.

Regarding claim 41, claim 41 is analyzed with the same respect to claim 1. Furthermore, Bacon discloses the first processor 128 can maintain the user interface including user services while the second processor 136 manages the download (Col. 8, lines 17-50).

Regarding claim 42, Bacon further discloses wherein the programming is received in packets (Program code transaction, Fig. 4; Col. 9, lines 25-28), the

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terminal being configured to reassemble the packets (program code transaction) into an executable object and stored into non-volatile memory (Col. 10, lines 45-50 and Col. 15, lines 19-25).

Regarding claim 43, claim 43 is analyzed with respect to claim 1 in combination with claim 7.

Regarding claim 44, claim 44 is analyzed with respect to claim 8.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bacon et al. (US 5440632) in view of Diehl et al. (US 5,373,557).

Regarding claims 5 and 28, Bacon does not specifically show wherein the one or more criteria include a time of day.

Diehl shows a time of day criteria is included in the download of data (Col. 1, lines 55-60 and Col. 3, lines 5-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bacon by including a time of day criteria in order to determine the possibility time to download during the off peak hours of use (Col. 2, lines 6-17).

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3. Claims 20 and 38 rejected under 35 U.S.C. 103(a) as being unpatentable over Bacon et al. (US 5440632) in view of Iggulden et al. (US 5,987,210).

Regarding claim 20, Bacon fails to disclose that one or more criteria include detection of commercial break in television programming being received by set top terminal.

Iggulden shows a processor (114) for processing the video signal to detect the presence of commercial messages (Fig.1). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify Bacon by inserting a video event detector to detect the criteria for commercial break in order to control the operation of a video recording and playback device so as to automatically eliminate commercial messages during playback of a recorded television signal.

Regarding claim 38, see analysis of claim 20.

4. Claim 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Bacon et al. (US 5440632) in view of McClellan et al. (US. 5,619,250).

Regarding claim 23, Bacon does not specifically show one or more criteria including a positive response by subscriber that new programming has been received and is ready for execution and requests permission to execute the new programming.

McClellan shows that subscriber usually has to request to restart the set-top box in order to reset the set-top box to new configuration (Col. 3, lines 19-23).

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Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify Bacon to include a criteria of requiring subscriber to request for permission to execute new programming in order to reset the set-top box to new configuration so it would not interrupt any current TV program being viewed.

5. Claims 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bacon et al. (US 5440632) in view of Kraml et al. (US 6141683).

Regarding claim 45, Bacon discloses a method of operating a set-top terminal (Fig. 2A-B) for connecting a subscriber to a cable network, wherein the set-top terminal comprises a processor 128 and a memory unit 134, 137 and 138, the memory unit storing program that is executed by the processor during operation of the set-top terminal (see Abstract). Bacon further discloses executing the newer version of the programming upon start-up of the set-top terminal (Col. 13, lines 54-Col. 15, lines 26).

Bacon does not clearly disclose the memory unit further comprises at least two versions of the programming, a newer version and an older version, receiving a command via the cable network to switch versions of the programming and termination of the newer version of the programming and beginning execution of the older version of the programming in response to receipt of the command.

Kraml discloses a remote computer with memory unit comprises at least two versions of the programming (Col. 5, lines 22-27 and lines 45-57), executing the

newer version (n+1 store in 1<sup>st</sup> memory) of the programming upon start-up of the set-top terminal (Col. 6, lines 22-28), receiving a command via the cable network to switch versions of the programming and termination of the newer version of the programming and beginning execution of the older version of the programming in response to receipt of the command (Col. 6, lines 47-61 and then follow steps 405, 406, 407, 408, 414 then loop at 415). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify Bacon with the teaching of Kraml so to enhance the capability of installing a new version of software application in the remote set-top box while the remote set-top box is executing an older version of the software application or installing a new version of software application into the memory without overwriting the old version in such a manner that during the execution of the new version of the software application and if the new version of the software application crashes for any reason, the remote terminal/set-top box can begin using the old version of the software immediately and needs not suspend operation while the new version of the software application is being retransmitted and re-installed (see Col. 3, lines 50-65 and summary).

Regarding claim 46, Kraml further discloses erasing the newer version of programming from the memory (until the newest version can be installed or re-installed over the crashed software version) and restarting the remote terminal to begin execution of the older version of programming (Col. 3, lines 50-65 and Col. 7, lines 37-43).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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**Contact Fax Information**

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or Faxed to:** (703) 872-9314

For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is (703) 308-7372. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377



**ANDREW FAILE**  
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HT:ht  
October 17, 2002